HOUSING MARKET INFORMATION

HOUSING MARKET ASSESSMENT

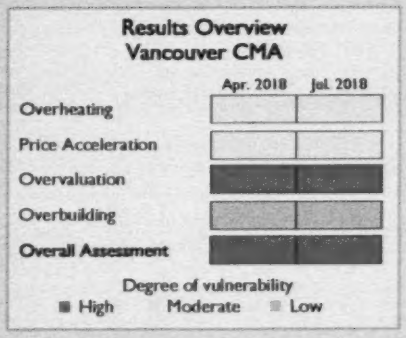
Vancouver CMA

Date Released: Third Quarter 2018

Canada

CMHC SCHL

Highlights



- CMHC's Housing Market Assessment (HMA) framework detects a high degree of vulnerability[1] for the Vancouver Census Metropolitan Area (CMA) housing market.
- The overall rating is driven by imbalances in three factors: Overheating, Price Acceleration and Overvaluation. These parts of the framework point to imbalances in activity, the speed of price growth, as well as the magnitude of house price growth compared with fundamental factors in the Vancouver CMA.
- As both unsold inventories of homes and apartment vacancy rates remain low, there continues to be low evidence of overbuilding.

HMA Overview[2]

As Canada's authority on housing, CMHC contributes to market stability by providing information on potential imbalances that could affect housing markets. With the Housing Market Assessment (HMA), CMHC offers information and analysis that can help Canadians make more informed decisions.

The HMA combines the results from a technical framework with insights gained through CMHC's Market Analysts' knowledge of local market conditions. These insights position CMHC to provide additional context and interpretation to the results of the HMA framework.

The HMA framework detects degrees of vulnerability in local housing markets by identifying imbalances. An example would be the detection of overbuilding, a situation in which the inventory of unsold new homes accumulates due to supply outpacing demand. Such an imbalance could be resolved by an adjustment in house prices. As an example, lower prices would help resolve an excess supply imbalance by supporting stronger demand and/or reducing supply. However, other unexpected developments that do not originate from the housing market could accentuate or reduce an imbalance.

Colour codes indicate the degree of market vulnerability. The HMA is a comprehensive framework that considers both the intensity of signals of imbalances (that is, how far the indicator is from its historical average) and the persistence over time. Generally, low intensity and persistence are associated with low evidence of vulnerability. As the number of intense and persistent signals increases, the associated degree of vulnerability becomes stronger.

In Detail

Moderate Evidence of Overheating

The Vancouver CMA housing market continued to be rated as showing moderate evidence of overheating due to the HMA's persistence rules. Overheating was first detected in the last quarter of 2015, while the overall sales-to-new-listings ratio

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[1] Results are based on data as if the end of March 2018 and local market intelligence up to June 2018. CMHC continuously monitors market developments and will issue HMA updates on a quarterly basis.

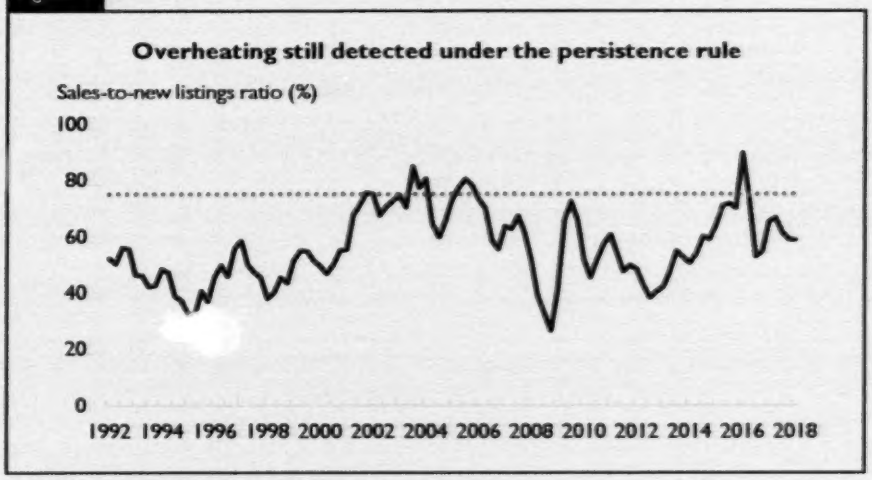
[2] A detailed description of the framework is available in the appendix of the National edition.

(SNLR, a measure of balance between demand and supply) is below the 75% threshold designated for overheating in the Vancouver CMA (Figure 1).

Although the overall SNLR held steady, conditions continue to vary by market location and type. Table 1 shows the seasonally-adjusted sales-to-available ratio[3] for single-detached homes and condominiums (both townhouses and apartments) across different municipalities in the Vancouver CMA for the second quarter of 2018. Although the majority of the sales-to-available ratios for townhouses and apartments remain within sellers' territory, the market has been cooling quickly through 2018.

Over the past two years it has become clearer that differences in market conditions between property types and locations is primarily

Figure 1



Sources: CREA and calculations (threshold) by CMHC

Eric Bond
Manager, Market Analysis

"Metro Vancouver's housing market remains highly vulnerable. Tight market conditions for lower-priced properties continue to exert upward pressure on the prices of these homes, accentuating CMHC's detection of overvaluation in the Metro Vancouver housing market."

Table 1: Sales-to-Available Ratio (Q2 2018)

	Single-Detached	Condo (Attached + Apartment)
Burnaby	9%	27%
Coquitlam	12%	25%
Delta	13%	24%
New Westminster	20%	35%
North Vancouver	16%	28%
Port Coquitlam	26%	33%
Port Moody	10%	28%
Richmond	9%	22%
M Ridge P Meadows	17%	26%
Vancouver DT	-	19%
Vancouver East	11%	29%
Vancouver West	9%	24%
West Vancouver	5%	12%
Langley	20%	27%
Surrey	14%	28%
S. Surrey / White Rock	8%	20%
Vancouver CMA	13%	25%

*A balanced market is between 10 and 18%
Source: SnapStats (Based on Real Estate Board of Greater Vancouver and Fraser Valley Real Estate Board data), CMHC calculations

[3] The Sales-to-Available ratio is another measure of market balance and can be thought of as a scaled version of the Sales-to-Active Listings ratio. It is calculated as: Sales/(Active Listings + Sales). The Sales-to-Available ratio is the percentage of homes offered for sale in a given month that were sold (e.g. A 50% Sales-to-Available ratio means half of the homes offered for sale in a given month were sold in that month). The Sales-to-Available ratio, unlike the Sales-to-Active Listings ratio, is bounded between 0 and 100%.

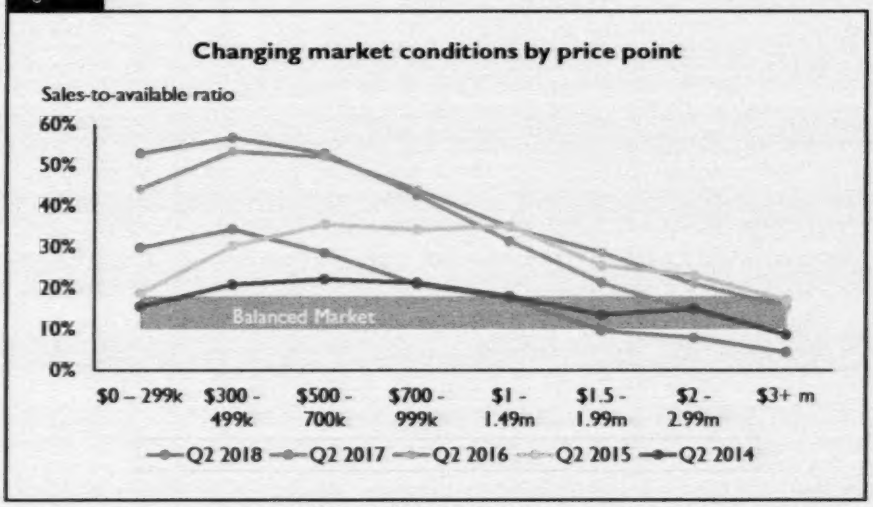
determined by affordability. Figure 2 shows the sales-to-available ratio in the second quarter from 2014 through to 2018. As can be seen in the figure, there has been a pronounced change in the overall relationship between market conditions and price point between 2014-2016 and 2017 to 2018, with very tight market conditions now dominating the lower price points and a much greater availability of homes at higher price points.

Moderate Evidence of Price Acceleration

The HMA framework detected moderate evidence of price acceleration, which was originally triggered in the second quarter of 2016. The framework indicates price acceleration is present if a significant price increase occurs at least once in the previous three years (Figure 3). Rapid short-term price gains can attract investors and promote speculative activity that pushes prices further upwards.

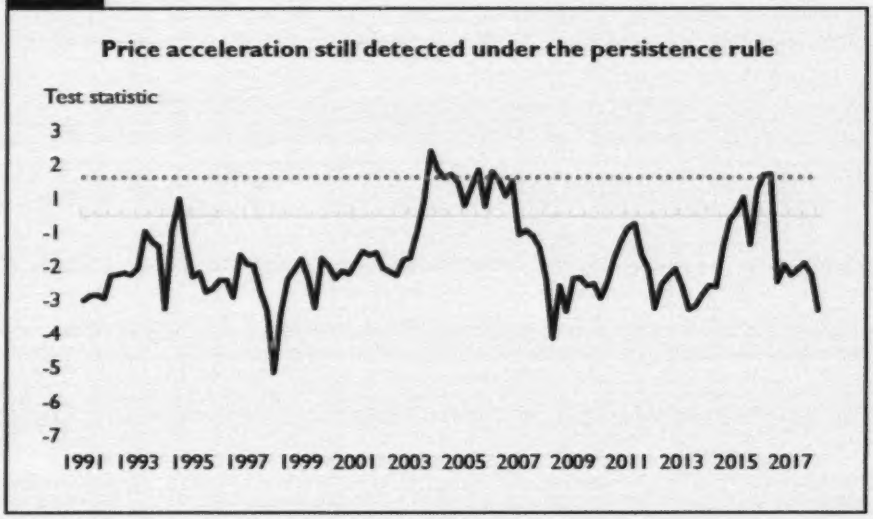
In June 2018, the MLS® HPI benchmark price composite (for all home types combined) saw higher year-over-year price increases in areas under the Fraser Valley Real Estate Board (FVREB) (18.4%) than in areas under the Real Estate Board of Greater Vancouver (REBGV) (9.5%). However, price growth has been slowing considerably over the last two quarters, and has turned negative in some areas.

Figure 2



Source: SnapStats (based on REBGV and FVREB data), CMHC Calculations

Figure 3



Sources: CREA and calculations (threshold) by CMHC

The maps in figures 4 and 5 show the distribution of benchmark price increases across the Vancouver CMA for detached and apartment homes respectively. Declining prices for detached properties in some areas are due to high inventories that have accumulated due to sustained falling sales volumes.

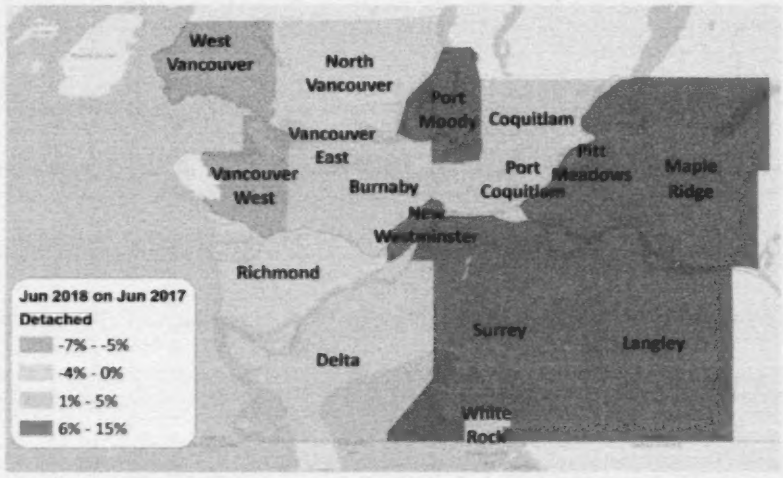
High Evidence of Overvaluation

The HMA framework detected high evidence of overvaluation in Metro Vancouver's housing market in the first quarter of 2018. Current price levels are far higher than the upper predicted values from price models based on demand and supply fundamental factors such as population, income, financing costs, and land supply.

Figure 6 shows the standard deviation of price gaps that exist between our framework's estimated price levels and the actual values of an array of price measures. If the average standard deviation of all used models is above the threshold of 1.29, then there is strong evidence of overvaluation. In the first quarter of 2019, CMHC's HMA framework detected that the average of the models was higher than the threshold (Figure 6). High price levels coupled with rising mortgage rates since the second half of 2017 have further stretched home affordability in the Vancouver CMA.

Figure 4

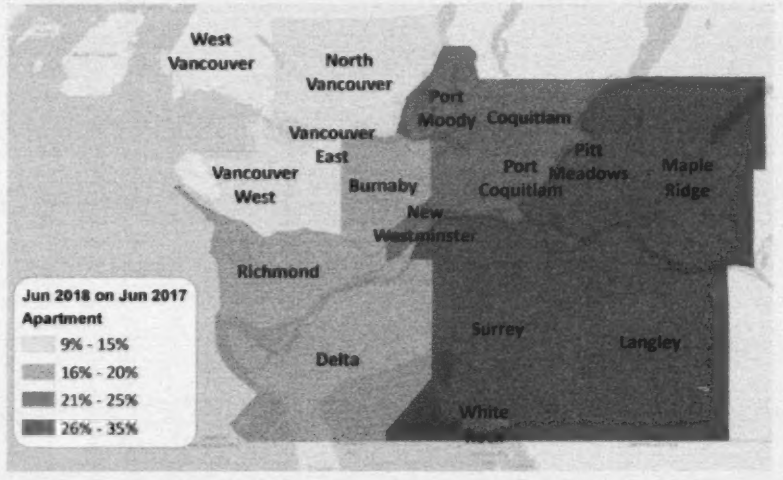
Price Acceleration in Metro Vancouver (HPI YoY % change)



Source: REBGV and FVREB

Figure 5

Price Acceleration in Metro Vancouver (HPI YoY % change)

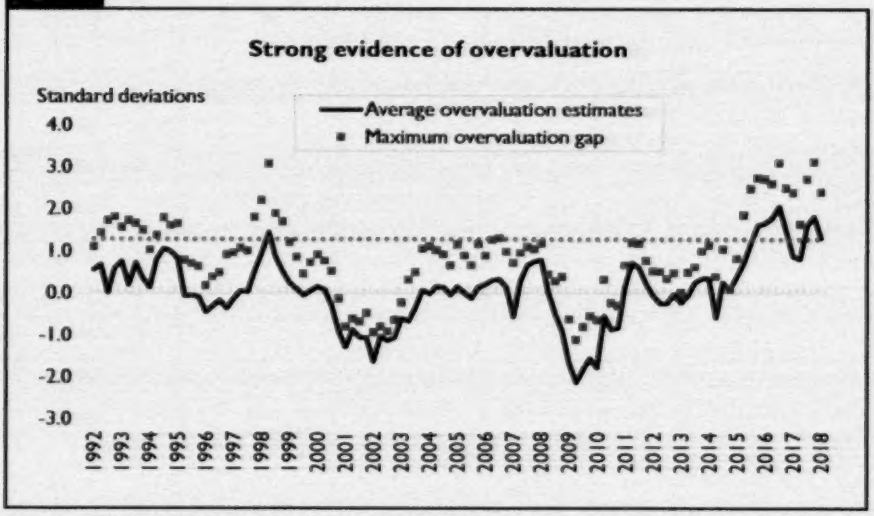


Source: REBGV and FVREB

Low Evidence of Overbuilding

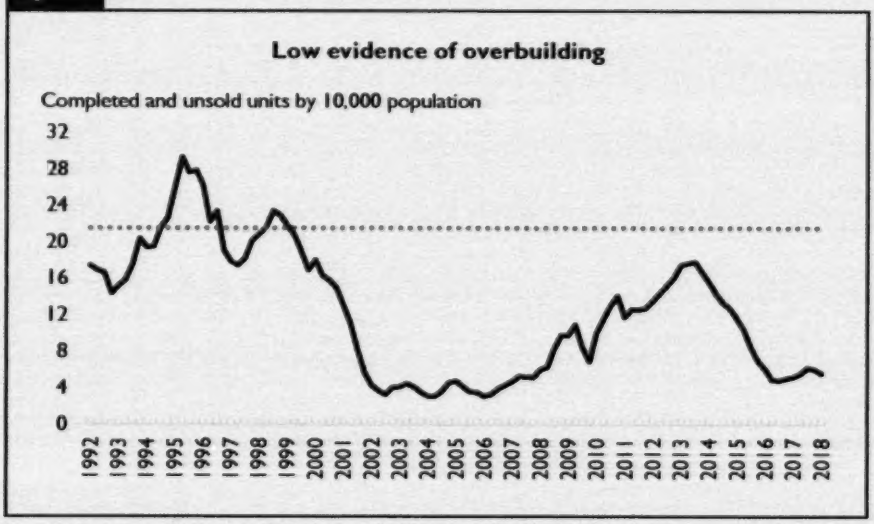
The HMA framework continued to detect low evidence of overbuilding in Metro Vancouver's housing market. Despite record-breaking new home construction over the past two years, new home inventories remain low as developers have not been able to keep up with the demand. Inventories for multi-family dwellings have stayed relatively flat since July 2016, hovering around 400 units, while the stock of single detached homes has gone up slightly. Overall there remains very little unabsorbed stock relative to the local population (Figure 7).

Figure 6



Sources: CREA, Statistics Canada, Teranet and National Bank of Canada, and calculations by CMHC.
Note: The average estimate of overvaluation is the average gap between actual house prices and price levels estimated from a group of selected models. These include demand, supply, hybrid, and affordability models, each of which is estimated using four measures of house prices to generate sixteen unique estimates of overvaluation. The selection of models is conducted with a set of cointegration tests, and the selected models are estimated with Dynamic Ordinary Least Squares (DOLS). The maximum overvaluation gap is obtained from the model that has the largest gap between the actual price and the estimated price. The threshold is fixed at a critical value of 1.29 for a confidence level of 80%. Overvaluation is signaled when overvaluation estimates lie above the threshold. Last data point: 2018Q1

Figure 7



Source: SnapStats (based on REBGV and FVREB data), CMHC Calculations

Overview of the Housing Market Assessment analytical framework

To obtain an accurate picture of the overall state of the housing market, it is important to consider multiple data points and lines of evidence rather than relying on just one measure or indicator.

The Housing Market Assessment (HMA) analytical framework provides a comprehensive and integrated view that relies on a combination of signals from several indicators to detect imbalances in housing markets.

Specifically, the framework considers four main factors that may provide an early indication of vulnerability in the housing market: (1) overheating (when demand outpaces supply); (2) sustained acceleration in house prices; (3) overvaluation of house prices in comparison to levels that can be supported by housing market fundamentals (listed below); and, (4) overbuilding (when the inventory of available housing units is elevated).

For each factor, the framework tests for: (1) the incidence of signs of vulnerability, but also considers; (2) the intensity of the signals, i.e. how their magnitude compares with their historical average or how consistent they are with known or suspected house price bubbles, such as for Toronto in the late 1980s and early 1990s; and, (3) the persistence of signals over time.

Generally, a situation in which we detect few signals with low intensity or lack of persistence is associated with a low degree of vulnerability. Conversely, as the intensity, number, and/or persistence of the signals increases, so does the evidence of imbalances in the housing market.

The framework takes into account demographic, economic, and financial determinants of the housing market such as population, personal disposable income, and interest rates to detect vulnerability. The framework also takes into account developments in both resale and residential construction markets.

The framework was developed on the basis of its ability to detect vulnerable housing market conditions in historical data, such as the house price bubble Toronto experienced in the late 1980s and early 1990s. The ability of the HMA to detect vulnerabilities relies on the assumption that historical relationships between prices and fundamental drivers of housing markets have not changed.

Housing Market Assessment Factors

Overheating

Overheating is caused by demand significantly and persistently outpacing the supply of housing. The sales-to-new listings ratio is used as an indicator to assess possible overheating conditions in the existing home market. To identify signs of overheating, the framework compares the sales-to-new listings ratio to thresholds. When demand is strong relative to supply, house prices typically grow at a faster rate. Sustained overheating on the existing home market may lead to acceleration in house prices for existing and new homes. However, as supply and demand begin to balance out, indicators of overheating (and acceleration) would begin to soften and house prices would gradually moderate.

Acceleration in House Prices

Under balanced market conditions, house prices are expected to increase over time, in line with increases in households' cost of living. House price acceleration occurs when the growth in house prices strengthens over time on a persistent basis. Acceleration in house prices over an extended period can cause their pace of increase to depart from the overall price inflation and eventually lead to overvaluation.

To assess acceleration in house prices, the HMA framework uses a statistical test* that was developed to identify periods of accelerating asset prices.

Overvaluation

Overvaluation is detected when house prices remain significantly above the levels warranted by fundamental drivers of housing markets such as income, population, and actual and expected financing costs.

The HMA framework uses combinations of different house price measures and models to estimate house price levels warranted by fundamental drivers. The difference between observed house prices and their estimated levels consistent with housing market fundamentals allows for an estimation of the degree of over- and undervaluation. The use of different price measures and models improves the reliability of results.

Overbuilding

Overbuilding is detected when the supply of readily available housing units significantly exceeds demand. In such a context, downward pressure on house prices would occur until the excess supply is eventually absorbed. To assess signs of overbuilding in the housing market, the HMA framework uses two indicators that relate to the supply of readily available housing units: the rental vacancy rate, and the inventory of completed and unsold housing units per 10,000 population. The HMA framework compares the current level and recent trends in these indicators with thresholds.

Note 1: Colour codes indicate the degree of market vulnerability. The HMA reflects a comprehensive framework that not only tests for the presence or incidence of signals of imbalances (that is, how far the indicator is from its historical average), but also considers the intensity and the persistence of these signals over time. Generally, low intensity and persistence are associated with a lower vulnerability. As the number of persistent signals increases, the evidence of an imbalance increases.

Note 2: Results at the CMA level are not segmented by housing type or neighbourhood. They represent an assessment of the entire CMA. However, specific CMA reports provide further detailed analysis of these markets.

Note 3: The colour scale extends to red only for those factors that have multiple indicators that can identify imbalances. As a result, only overvaluation and overbuilding can receive a red rating, since they are assessed using more than one indicator.

Note 4: To ensure the framework is as current as possible, on a regular basis, we undertake a model selection process whereby our house price models for overvaluation are tested for statistical significance at the national and CMA level. The result of this process may change the number of indicators showing vulnerability from the previous assessment.

* See Phillips, Wu and Yu (2008) "Explosive Behaviour in the 1990s NASDAQ When Did Exuberance Escalate Asset Values?" for further details on the methodology.

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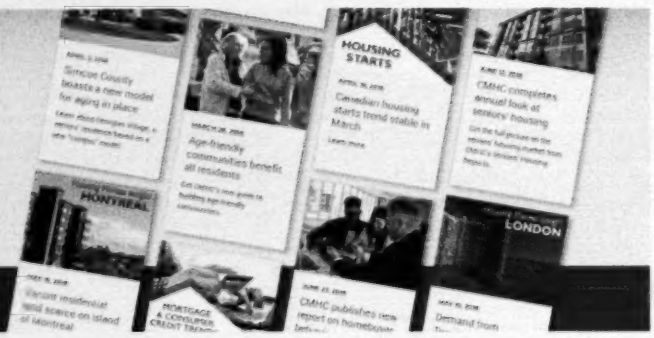

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